

Administrative Procedures

HMIS-PRO-SP-095

Scaffolding

Revision 0, Change 1

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Subject Matter Expert: Briscoe, William R Functional Manager: Foster, Andrew L

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• 100 K Facility (CPCCo):

Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)

Screener: Oberg, Brian • 324 Building (CPCCo):

Categorical Exclusion: GCX-8 (Not in Safety Basis Compliance Matrices)

Screener: Oberg, Brian

• Canister Storage Building/Interim Storage Area (CPCCo):

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Screener: Walker, Wylie

• Solid Waste Operations Complex (CPCCo):

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Screener: Jacobs, Jake

• Waste Encapsulation and Storage Facility (CPCCo):

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Change Summary

Description of Change

Clarification of requirements and modification to HMIS information

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1.0 PURPOSE

This procedure establishes the basic safety requirements and practices for the design, construction, maintenance, inspection, use, and dismantling of supported scaffold including mobile scaffolds.

2.0 SCOPE

This procedure is endorsed by and applicable to all Hanford Contractor Team employees in the Hanford Mission Integration Solution (HMIS), Central Plateau Cleanup Company (CPCCo) and Washington River Protection Solutions (WRPS) scopes of work subject to the Occupational Safety and Health Administration (OSHA) requirements enforceable under 29 CFR 1910, Subpart D, Walking Working Surfaces and 29 CFR 1926, Subpart L, *Scaffolds*, this includes construction subcontractors.

This procedure was developed by Hanford Contractor (CPCCo, HMIS, WRPS) team members consisting of Subject Matter Experts, HAMTC Representatives, and Building Trade Representatives. Revisions to this procedure, associated forms or tags shall be agreed upon by each of the Hanford Contractors, HAMTC and the Building Trades.

This document implements the Integrated Safety Management System (ISMS) Core Functions: Identify and Analyze the Hazards, Develop and Implement Hazard Controls, Perform Work within Controls and Provide Feedback and Continuous Improvement.

This procedure does not cover crane/derrick suspended personnel platforms (refer to 29 CFR 1926 Subpart CC, Cranes & Derricks in Construction, and DOE-RL-92-36, Hanford Site Hoisting and Rigging Manual - Personnel Lifting, Chapter 15) or aerial lifts (refer to 29 CFR 1926.453, Aerial Lifts, 29 CFR 1910.67, Vehicle-Mounted Elevating and Rotating Work Platforms).

This Procedure does not cover scaffolding components used for anything other than the ones described in 29 CFR 1926, Subpart L. For other purposes such as tent enclosures, guarding systems, barricading etc. additional regulations, company procedures and site wide standards must be considered.

Additional information and guidance relating to scaffold safety can be found in American National Standards Institute (ANSI) Code A10.8, *Safety Requirements For Scaffolding*, and OSHA Compliance Instruction (OSHA CPL) No. 2-1.23, *Inspection Procedures for Enforcing Subpart L, Scaffolds Used in Construction*. For design and construction requirements applicable to specific types of scaffolding, refer to 29 CFR 1926.452, *Additional Requirements Applicable to Specific Types of Scaffolds*.

Requirements are found in Appendix A.

3.0 RESPONSIBILITIES

Competent Person for Erection:

• Ensures scaffold are erected and dismantled in a safe manner by trained employees.

Competent Person for Inspections:

• Ensures erected scaffolds are maintained in a safe working condition.

Safety Organization:

 Communicates with the competent person to ensure the safety of scaffold erectors and users.

Scaffold User:

 Performs work assignments in a safe manner from properly erected and inspected scaffolds.

4.0 INSTRUCTIONS

4.1 <u>Scaffold Erection Preparation</u>

Actionee	Step #	Action
Requesting Organization	1.	COMPLETE section 1 of the <i>Scaffold Plan Checklist</i> (A-6007-191) and IDENTIFY special job needs (e.g., type of work activity, special configurations, location of access, scope of work, material loading, and type of material being handled) to the Erecting Organization.
Work Supervisor/ Person-In-Charge	2.	ASSIGN the Competent Person(s) for Erection, as needed for the scope of work.
Competent Person for Erection 3		CARRY OUT the applicable duties relating to scaffold design and erection as prescribed in section A.3 of <u>Appendix A</u> .
Competent Person for Erection	4.	SELECT trained Scaffold Erectors
	5.	REVIEW the safety requirements with the workers.
Work Supervisor/ Competent Person for Erection	6.	CONTACT Electrical Utilities Operations central dispatch if scaffold erection activity work is scheduled to be performed

within 20 feet of the centerline of the nearest utility power line, to establish specific work requirements.

4.2 <u>Scaffold Erection</u>

Actionee	Step #	Action
Competent Person for Erection	1.	ENSURE section 1 of the <i>Scaffold Plan Checklist</i> (A-6007-191) is complete.
	2.	DIRECT the scaffold erection activity.
	3.	DETERMINE the need for and size of mud sills using design calculations from the manufacturer.
	4.	ENSURE scaffold erection includes manufacturer design specifications and wind loading if applicable.
Scaffold Erector	5.	SELECT the scaffold equipment/material needed, inspecting it to ensure good condition.
	6.	PREPARE a firm and stable foundation to provide support and proper load distribution for the scaffold.
		NOTE: The trigger level of scaffold height for evaluating the feasibility of fall protection is 10 feet.
Competent Person for Erection/Safety Org	7.	DETERMINE the feasibility, safety, and appropriate means of providing a safe means of access and fall protection for the Scaffold Erector.
Scaffold Erector	8.	Where determined to be feasible, PROVIDE for safe means of access and fall protection during scaffold erection activity.
Competent Person for Erection	9.	DETERMINE the level of protection needed to prevent personnel walking or working beneath the erection activity from being exposed to the potential hazard of falling objects.
		 PROVIDE precautionary posting or barriers for exposure to motorized equipment/vehicles.

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Actionee	Step #	Action
Scaffold Erector	10.	CONSTRUCT the scaffold in accordance with the established design criteria and manufacturer specifications.
		NOTE: Install fall protection (guard railing system or another form of fall protection) on scaffolds with a working platform 6 feet or more above a lower level or any height above dangerous equipment, for protection of the Scaffold User.
Competent Person for Erection	11.	AFFIX a RED Status Tag as soon as practical during the initial stages of erection.
	12.	ATTACH an appropriately signed and dated GREEN, YELLOW, or RED scaffold Status Tag near the access point of any complete or incomplete scaffold, with your name and any instructions legibly written.
		NOTE: As part of the inspection, evaluate the unit for proper construction to include such criteria as anchoring, bracing, deck securing, fall protection, footing, plumb/leveling, and overall stability.
	13.	COMPLETE an initial scaffold inspection and ATTACH a signed and dated <i>Scaffold Inspection Tag</i> near the access point following completion of erection.
	14.	Requesting organization and Erecting Organization VERIFY the scaffold is built in the proper location and it safe to use by completing section 2 of the <i>Scaffolding Plan Checklist</i> (A-6007-191).

4.3 <u>Scaffold Use</u>

Actionee	Step #	Action		
Competent Person	1.	INSPECT the scaffold to ensure safe condition for use.		
		• INSPECT before the start of work on each shift.		
		 INSPECT after any occurrence which could affect a scaffold's structural integrity such as additional load, vibration, or lateral force. 		

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Actionee Step# Action INSPECT prior to or during use when exposures to stormy weather or high wind conditions exist, to determine safe condition for usage. Legibly ENTER your signature and DATE on the attached Scaffold Inspection Tag. NOTE: If the Scaffold Inspector is also the Competent Person for Erection, he/she may remove the GREEN or YELLOW Status Tag prior to attaching the RED Status Tag. • IF the inspection reveals one or more safety deficiencies, THEN ATTACHED a RED Status Tag to the scaffolding as an overtag to the GREEN or YELLOW Status Tag. and immediately NOTIFY the user's organization individual listed as "P.O.C." on the Status Tag being replaced. Field Work Supervisor 3. ENSURE the scaffold has been inspected before work is assigned. Scaffold User CHECK for the presence of a scaffold Status Tag and Scaffold 4. Inspection Tag. • NOTE any special conditions and COMPLY with controls developed by the user's organization. IF special conditions are posted on the Tag, but not legible, THEN CONTACT the Facility Point of Contact for assistance. 5. WORK only from a GREEN or YELLOW-tagged scaffold. NOTE: Refer to Section A.6 in Appendix A for specific training requirements. 6. ASCEND/DESCEND a scaffold only with the knowledge and expertise to do so safely, using approved access provided.

USE the scaffold only for its intended purpose, and within its

NOTIFY the Field Work Supervisor or Competent Person for Erection if the scaffold needs to be modified to support work

designed capacity.

7.

8.

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Actionee	Step #	Action		
		scope, or if there is evidence of damage, weakness, or other deficiency. (This includes notification following any event that could affect the unit's structural integrity)		
	9.	PROTECT personnel working below from the potential of falling objects while working from a scaffold.		
Work Supervisor	10.	NOTIFY the Erecting Organization to dismantle the scaffold when work is completed.		
Competent Person for	11. WHEN directed, SAFELY dismantle the scaffold:			
Erection		 AFFIX a RED Status Tag at/near the access point during dismantling. 		
		 KEEP affected employees on the ground clear of the dismantling work zone. 		
		• REVIEW safety sequence for dismantling with work crew.		
		 APPLY the applicable controls for provision of safe means of access and fall protection per step 4.2.6. 		
		 AVOID accumulation of excess tools, equipment and components on the level being dismantled. 		
		• RETURN scaffold components to a safe storage condition.		

4.4 Scaffold Training

NOTE: Fall protection other than a guardrail system that is used on a scaffold, may require additional fall protection training. See DOE-0346, Hanford Site Fall Protection Program.

Actionee	Step #	Action	
Employee's Manager	1.	ENSURE each employee who performs work while on a scaffold completes course #044371, Users Scaffold Safety-CBT.	
	2.	ENSURE each competent person who is assigned to perform scaffold inspections completes the following training:	
		• Course #044372, Scaffold Safety for Inspectors Course #044373, Scaffold Safety for Erectors/Dismantlers	

- 3. ENSURE each employee who is involved in erecting, dismantling, moving, operating, repairing, or maintaining completes the following training:
 - Course #044372, Scaffold Safety for Inspectors
 - Course #044373, Scaffold Safety for Erectors/Dismantlers
 - Course #020440, Fall Protection PFAS User
- 4. ENSURE each employee who is designated to be a Competent Person for Scaffolding completes the following training course(s) as applicable:
 - #600062 (CPCCo)
 - #044374 (HMIS)
 - #350434 (WRPS)
- 5. ENSURE employees are retrained by completing the appropriate level of training (User, Inspector, Erector/Dismantler) if any of the conditions in section A.6, item 2 in Appendix A are met.

5.0 RECORD IDENTIFICATION

All records are generated, processed, and maintained in accordance with HMIS-PRO-RM-10588, *Records Management Processes*, or HMIS-PRO-RM-32281, *Electronic Records Management*, as applicable.

Records Capture Table

Name of Record	Submittal Responsibility	Retention Responsibility
Training Record for Scaffold Erector, User, and Inspector	Training Organization	Training Organization
Scaffold Plan Checklist (A-6007-191)	Work Planning/Construction Subcontractors	Work Planning/Construction Subcontractors
Competent Person Designation (A-6005-522)	Training Organization	Training Organization

Construction subcontractor records generated during the performance of this activity are to be managed in accordance with Contractor Document Control Procedures.

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6.0 SOURCES

6.1 Source References

10 CFR 851, "Worker Safety and Health Program," Title 10, Code of Federal Regulations29 CFR 1926, Subpart G, "Signs Signals, and Barricades," Title 29, Code of Federal Regulations

29 CFR 1910, Subpart D, "Walking Working Surfaces," Title 29, Code of Federal Regulations 29 CFR 1926, Subpart L, "Scaffolds," Title 29, Code of Federal Regulations

6.2 References

ANSI A10.8-2001, *Safety Requirements for Scaffolding*, American National Standards Institute, New York, New York

OSHA Instruction CPL 2-1.23, *Inspection Procedures for Enforcing Subpart L, Scaffolds Used in Construction*, Occupational Safety and Health Administration

29 CFR 1910.67, "Vehicle-Mounted Elevating and Rotating Work Platforms," Title 29, *Code of Federal Regulations*

HMIS-RD-SP-10972, Elevating Work Platforms

DOE-0346, Hanford Site Fall Protection Program

DOE-0359, Hanford Site Electrical Safety Program

6.3 Forms

A-6005-522, Competent Person Designation A-6007-191, Scaffold Plan Checklist

Appendix A. Requirements

A.1 General

NOTE: For the tables in this section under the requirement "type" column, "V" means verbatim and "I" means interpreted.

#	REQUIREMENT	TYPE V or I	SOURCE
1.	Scaffold systems shall be constructed in accordance with design specifications, and OSHA regulations.	I	29 CFR 1926.451
2.	Scaffolds are to be assembled as complete with prescribed component parts in place. Deviation is permitted only in cases of infeasibility (e.g., building structural barriers, interference, or obstacle limitation exists), when accompanied by implementation of equivalent safety measures.	I	29 CFR 1926.451
3.	Tube and coupler and tubular welded frame scaffolds over 125 feet in height, pole scaffolds over 60 feet in height, and all outrigger beam scaffolds and their components shall be designed by a registered professional engineer.	I	29 CFR 1926.452 (a) and (b)
4.	Each employee on a scaffold shall be provided with additional protection from falling hand tools, debris, and other small objects through the installation of toeboards, screens, or guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects. When the falling objects are too large, heavy or massive to be contained or deflected by any of the above-listed measures, the employer shall place such potential falling objects away from the edge of the surface from which they could fall and shall secure those materials as necessary to prevent their falling. Hardhats shall be worn during erection and dismantling of scaffolding.	I	29 CFR 1926.451(h)(1)
5.	Scaffolds shall be designed, constructed, modified, or altered <i>only</i> with the knowledge of the maximum intended load, and with the structural capability to support without failure its own weight and at least 4 times the maximum intended load applied/transmitted.	I	29 CFR 1926.451 (a)(1)
6.	Competent Person designations for scaffold inspection and erection shall be documented by the organization(s) responsible for providing these services on Site Form A-6005-522.	I	29 CFR 1926.451 (f)(7)
7.	Scaffolds and scaffold components shall be inspected for visible defects by a Competent Person:	I	29 CFR 1926.451 (f)(3)

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#	REQUIREMENT	TYPE V or I	SOURCE
	 Following scaffold erection Following scaffold modification Before each work shift, and After any occurrence which could affect a scaffold's structural integrity Completion of the inspection will be documented on the <i>Scaffold Inspection Tag</i>. NOTE: <i>Ref</i>er to the Scaffold Inspection Tag, <i>Appendix D</i>, for scaffold inspection criteria. 		
8.	A standardized <i>Scaffold Inspection Tag</i> and scaffold <i>Status Tag</i> (refer to section A.4, item 19) shall be affixed near the access point (e.g., ladderway) of the scaffold structure by the Competent Person for Erection. NOTE: • Inventory and control of tags is the responsibility of the erecting organization, for the purpose of maintaining standardization. • The Scaffold Inspection Tag and Status Tags are intended for one-time usage, and are not to be retained for reuse after removal from a scaffold unit.	I	29 CFR 1926.200

A.2 Qualified Person

On the Hanford Site, only scaffold systems and components manufactured to ANSI 10.8 shall be used. Following the manufacturer's instructions for those scaffold systems and components will meet the Qualified Person requirements in this section

1.	A Qualified Person is required to design scaffold systems.	I	29 CFR
			1926.451 (a)(6)
2.	A Qualified Person is required to approve variations to original	I	29 CFR
	scaffold design.		1926.451 (a)(6)

A.3 Competent Person for Scaffold Erection

In accordance with the Hanford Mission Essentials Services Contract (HMESC) No. 89303320DEC000031, the HMIS Crane and Rigging Organization is designated to provide scaffold assembly, erection and disassembly services to all the Hanford Contractors. In this

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role, all the Hanford Contracts recognize the HMIS Crane and Rigging Competent Person for Scaffolds designation. All other employees performing the duties of a Competent Person for Scaffolds will be designated by the Hanford Contractor requiring their services.

1.	A Competent Person for Erection is required to supervise and direct scaffold work relating to erecting, dismantling, maintaining, and repairing.	I	29 CFR 1926.451 (f)(7)
2.	A Competent Person for Erection is required to select trained Scaffold Erectors, and review the safety requirements for the job with these erectors.	I	29 CFR 1926.451 (f)(7)
3.	A Competent Person for Erection is required to approve the intermixing of scaffold components manufactured by different manufacturers or made of dissimilar metals.	I	29 CFR 1926.451 (b)(10)
4.	A Competent Person for Erection is required to determine the feasibility, safety, and appropriate method of providing safe means of access and fall protection for the Scaffold Erector during each stage of scaffold erection, based on specific site conditions.	I	29 CFR 1926.451 (g)(2)
5.	A Competent Person for Erection is required to determine the scaffold status, and assure the appropriate <i>Status Tag</i> is affixed near the ladder access. NOTE: In the event that a greater hazard is introduced by having the Competent Person for Erection enter a hazardous work environment (e.g., As Low As Reasonably Achievable [ALARA]), the Status Tag may be applied or removed by a Scaffold Erector at the request and under the verbal direction of the Competent Person for Erection.	I	29 CFR 1926.451 (f)(7)
6.	A Competent Person for Erection is required to determine the existence of a safe condition to work on or from a scaffold during storms or high wind conditions, and the need to institute protective measures such as additional fall protection or wind screens if clearance to perform work is authorized.	I	29 CFR 1926.451 (f)(3)
7.	A Competent Person for Erection is required to provide training in the erecting, dismantling, maintaining, repairing and inspecting of scaffolds. (Refer to section A.6)	I	29 CFR 1926.451 (f)(3)
8.	A Competent Person for Erection shall determine that an adequate foundation exists upon which the scaffold will sit.	I	29 CFR 1926.451(c)(1)(iii)

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A.4 Scaffold Erection

1.	Scaffold components shall be compatible and free of damage or defect.	I	29 CFR 1926.451 (a)(1), (b)(10)
2.	For wood scaffold planking, scaffold grade lumber or equivalent (as recognized by approved grading rules for the species of wood) shall be used.	I	29 CFR 1926, Subpart L, Appendix A
3.	Minimum and maximum permissible spans for 2 inch by 10 inch or wider wood planks, as identified in Table A1, shall be followed.	I	29 CFR 1926, Subpart L, Appendix A

Table A1. Material

	Fu	ıll Thickne	ess	Non	inal Thick	iness
	Und	ressed Lur	nber		Lumber	
Working Load (p.s.f.)	25	50	75	25	50	N/A
Permissible Span (ft.)	10	8	6	8	6	N/A

NOTE: Nominal thickness lumber is not recommended for heavy duty use.

4.	Scaffold materials or tools shall not be used in such a manner to	I	29 CFR 1926.451
	create a possibility of contact with energized electrical		(f)(6)
	conductors or utility power lines. Notification is to be made with		DOE-0359
	Electrical Utilities Operations (EUO) central dispatch at 373-		
	2321 (this should be done 48 hours in advance of the work) when		
	scaffold has the potential to be performed within 20 feet of the		
	centerline of the nearest power line conductor. EUO will address		
	the necessary work requirements to include clearance distances		
	and protective measures to prevent accidental contact, based		
	upon the requirements of DOE-0359 for distances.		
	apon me requirements of 2 02 000 for distances.		
-			
5.	Scaffolds shall stand plumb and level, and rest upon base plates	I	29 CFR 1926.451
5.	Scaffolds shall stand plumb and level, and rest upon base plates (stationary scaffold), and other adequate firm foundation, or as	I	29 CFR 1926.451 (c)(2)
5.	(stationary scaffold), and other adequate firm foundation, or as	I	29 CFR 1926.451 (c)(2)
5.	(stationary scaffold), and other adequate firm foundation, or as otherwise recommended by the scaffold component	Ι	
5.	(stationary scaffold), and other adequate firm foundation, or as	I	
5.	(stationary scaffold), and other adequate firm foundation, or as otherwise recommended by the scaffold component manufacturer.	I	
5.	(stationary scaffold), and other adequate firm foundation, or as otherwise recommended by the scaffold component manufacturer. NOTE: The application of mud sills of adequate size/dimension	I	
5.	(stationary scaffold), and other adequate firm foundation, or as otherwise recommended by the scaffold component manufacturer. NOTE: The application of mud sills of adequate size/dimension and secured to each base plate may be necessary, in addition to	I	
5.	(stationary scaffold), and other adequate firm foundation, or as otherwise recommended by the scaffold component manufacturer. NOTE: The application of mud sills of adequate size/dimension and secured to each base plate may be necessary, in addition to the base plates, to distribute a scaffold's load and prevent	I	
5.	(stationary scaffold), and other adequate firm foundation, or as otherwise recommended by the scaffold component manufacturer. NOTE: The application of mud sills of adequate size/dimension and secured to each base plate may be necessary, in addition to	I	

6.	Screw jacks or other equivalent stable means shall be used where leveling of a scaffold is deemed necessary.	I	29 CFR 1926.452 (w)(8)
7.	The feasibility of employing fall protection for Scaffold Erectors during scaffold erection or dismantling activity shall be determined by the Competent Person for Erection and the safety professional, this shall be documented on a Fall Protection Work Permit as discussed in Appendix C . NOTE: The trigger level of scaffold height for evaluating such feasibility is ten feet.	I	29 CFR 1926.451 (g)(2)
8.	 The feasibility of employing safe means of access for Scaffold Erectors during scaffold erection or dismantling activity shall be determined. Minimum requirements are: Hook-on or attachable ladders are to be installed as soon as practical after scaffold erection has progressed to a point that permits safe installation and use by the Scaffold Erector. Use of stair sections or "built-in" ladders designed as a part of the scaffold framing is also acceptable. End frame sections of tubular welded frame scaffolds are to have horizontal members that are parallel, level, not more than 22 inches apart vertically, and erected in a manner that creates a usable ladder that provides good hand hold and foot space in order to qualify as safe means of access. Crossbraces on tubular welded frame (sectional) scaffolds do not qualify as an acceptable safe means of access. NOTE: Feasibility guidelines for sections A.4, items 7 and 8 are suggested in Appendix C. 	I	29 CFR 1926.451 (e)(9)
9.	Scaffolds shall be placed as close to the work as possible. If fall protection is provided by the structure on which the work is being performed (e.g., building or wall), no more than 14 inches between the scaffold platform and the structure is allowed.	I	29 CFR 1926.451 (b)(3)
10.	Scaffold platform spaces shall be limited to 1 inch or less between adjacent units and the uprights. NOTE: Spaces up to 9 ½ inches wide are permitted around uprights.	I	29 CFR 1926.451 (b)(1)(i)

11.	Each platform shall be secured, with platform ends extended 6-12 inches over the centerline of their supports (unless restrained by hooks, cleats, or other means).	I	29 CFR 1926.451 (b)(4), (b)(5)
12.	Where fabricated scaffold planks are secured to end supports to prevent uplift, such means of attachment shall be affixed in such a manner so as not to expose sharp edges/ends (e.g., laceration hazards).	I	29 CFR 1926.451 (a)(6) & (d)(6)
13.	Scaffolds shall be evaluated for the potential of shifting or movement, and anchored or otherwise secured where deemed necessary.	I	29 CFR 1926.451 (c)(1)
14.	Scaffolds shall be guyed, tied, or otherwise braced at the closest horizontal member to a 4:1 height when the scaffold's height exceeds 4 times its smallest base dimension. Such means of securing is to be repeated every 26 feet vertically (20 feet for those units less than or equal to 3 feet in width) and 30 feet horizontally.	I	29 CFR 1926.451 (c)(1)
15.	Fall protection for Scaffold Users shall be installed when a working platform is six feet or more above a lower level or any height above dangerous equipment. Such protection may be in the form of a complete guard railing system or another form of fall protection.	I	29 CFR 1926.451 (g)(1)
	NOTE: A "complete guardrailing system" means that no entrance opening (e.g., ladderway access) onto the scaffold platform is permitted unless it can be closed by way of a gate, approved safety chain/cable assembly, or equivalent guarding protection.		
16.	A ladder, stairway, ramp or walkway shall be provided to access a scaffold platform more than 2 feet above or below a point of access.	I	29 CFR 1926.451, (e)(1)
17.	Adequate protection (e.g., toe-boarding, paneling/screening, canopy/catch platform, debris net, or barricades - as applicable) shall be installed where the potential for materials/objects falling from overhead to a lower level exists.	I	29 CFR 1926.451 (h)(2)
18.	Scaffold areas shall be marked or otherwise posted with warning flags or barriers where motorized equipment or vehicular traffic is present.	I	Public Law 91- 596, Section 5 (a)(1)

19.	 A scaffold <i>Status Tag</i> shall be attached near the access point of any scaffold being used, erected, modified, or dismantled, which is equivalent in color and verbiage to the following: RED Tag - KEEP OFF/DO NOT USE - prohibits use of the scaffold, as the unit is undergoing erection, alteration, or dismantling. YELLOW Tag - SPECIAL CONDITIONS/ADDITIONAL CONTROLS - indicates that the scaffold cannot physically be erected as "complete" or to Code, the scaffold has been modified to meet unique work requirements which may present a hazard to the user, or other special safety measures for use of the scaffold apply. Special condition(s) shall be 	I	29 CFR 1926.200
	entered on the tag (e.g. midrail missing at deck level). Additional controls (e.g. Fall Protection Work Permit, PPE, etc.) must be developed by the user organization (e.g., person of contact (P.O.C.), field work supervisor (FWS), using a work control method such as a hazard analysis discussed in the pre-job briefing. It shall be the responsibility of Scaffold User's organization to mitigate and communicate these hazards to the scaffold user. • GREEN Tag - SCAFFOLD IS COMPLETE AND ERECTED TO CODE/APPROVED FOR USE - indicates that the scaffold is complete, was constructed to approved erection standards, and was deemed safe for use following post-construction inspection.		
	 NOTE: Use of a YELLOW Status Tag does not permit intentional erection of incomplete scaffolds. In no case shall a scaffold that is missing components required for structural stability (e.g., bearers, runners, posts, ties, or braces) be tagged with a YELLOW or GREEN Status Tag. Only the Competent Person for Erection is permitted to affix or remove a YELLOW or GREEN Status Tag. A Competent Person for Inspection may only affix a RED Status Tag. GREEN, YELLOW, and RED Status Tag graphics are provided in Appendixes <u>D</u>, <u>E</u>, and <u>F</u>. 		
20.	A RED <i>Status Tag</i> shall be affixed to the scaffold at the onset of scaffold erection, alteration, or dismantling activity.	I	29 CFR 1926.200

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A.5 Scaffold Use

In accordance with the (HMESC) No. 89303320DEC000031, the HMIS Crane and Rigging Organization is designated to provide scaffold assembly, erection and disassembly services to all the Hanford Contractors. In this role, all the Hanford Contracts recognize the HMIS Crane and Rigging Competent Person for Scaffolds designation. All other employees performing the duties of a Competent Person for Scaffolds will be designated by the Hanford Contractor requiring their services.

1.	A Competent Person for Inspection is required to assure that a Status Tag is attached to the scaffold, as part of the inspection process.	I	29 CFR 1926.451 (f)(3)
2.	A Competent Person for Inspection is required to inspect the scaffold and its components for physical defects following completion of erection or structure modification, and thereafter.	I	29 CFR 1926.451 (f)(3)
3.	A Competent Person for Inspection is required to inspect the scaffold and its components following an occurrence that may have affected the scaffold's structural integrity	I	29 CFR 1926.451 (f)(3)
4.	Scaffolds shall be used <i>only</i> for their intended purpose, and within their designed capacity.	I	29 CFR 1926.451 (a)(6), (f)(1)
5.	Unstable objects or makeshift devices shall not to be used to increase the working height of a scaffold platform. Portable ladders may be used as a means for increasing the working height <i>only</i> after the responsible safety organization has determined that no other means is feasible, the stability of the structure has not been compromised, and adequate fall protection is in place.	I	29 CFR 1926.451 (f)(14), (f)(15)
6.	Straddling, standing on, or working outside guard railing is prohibited unless appropriate supplemental fall protection is approved and used.	I	29 CFR 1926.451 (g)(1)
7.	Mobile scaffolds are to be used on firm level surfaces, with casters or wheels locked before and during use.	I	29 CFR 1926.452 (w)(1),(w)(2)
8.	An employee is not permitted to "ride" on a mobile scaffold unless documented in a hazard analysis and approved by the responsible safety organization.	I	29 CFR 1926.452 (w)(6)

9.	Approved access means shall be used to ascend and descend scaffolds (e.g., stairs, attached ladder, or specially designed end frame). Cross-bracing or unauthorized structural components are not permitted to be used for access.	I	29 CFR 1926.451 (e)(1)
10.	The quantity of tools and materials on the scaffold platform shall be minimized to those necessary to perform the task. Removal or proper placement/securing of tools, materials, and equipment is to be practiced to control the potential for creating a slipping or tripping hazard, and further reduce the potential of falling tools, materials, or equipment.	I	29 CFR 1926.451 (h)(1)
11.	Each employee on a scaffold six feet or more above a lower level or any height above dangerous equipment shall be protected from falling to that lower level.	I	29 CFR 1926.451 (g)(1)
12.	Scaffolding shall be used <i>only</i> after it has been GREEN-tagged or YELLOW-tagged. Special conditions shall be entered on the tag by the Competent Person. If tag is missing or out of inspection, do not access the scaffold and contact the erecting organization. Additional controls must be developed and communicated by the user organization (i.e., POC, FWS) using a control method such as a JHA or be discussed in the pre-job briefing. Questions concerning additional controls will be addressed through the user organization. NOTE: For purposes relating to scaffold erection, modification, or dismantling, qualified scaffold erectors/dismantlers are permitted on a scaffold that is RED-tagged.	I	29 CFR 1926.200
13.	Unauthorized modification or removal of a scaffold system component, or scaffold <i>Status Tag</i> , is prohibited. The Field Work Supervisor or Competent Person for Erection shall be immediately notified if the scaffold needs to be modified or if there is evidence of damage, weakness, or other deficiency.	I	29 CFR 1926.451 (f)(7)

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A.6 Scaffold Training

1. Training shall be provided as follows:

I 29 CFR 1926.454
(a) & 1 (b)

Scaffold Users

Each employee who performs work while on a scaffold shall be trained, by a Qualified Person for Scaffolding, to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards.

NOTE:

- If Scaffold User training is presented in a media other than instructor led (i.e., computer-based training), a Qualified Person for Scaffolding's approval of the content of the training meets the above requirement.
- Each prime contractors Scaffolding Subject Matter Expert/Technical Authority/Interpretive Authority is designated to be the Qualified Person for Scaffold User training.

The training shall include the following areas, as applicable:

- The nature of any electrical hazards, fall hazards and falling object hazards in the work area;
- The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used;
- The proper use of the scaffold, and the proper handling of materials on the scaffold;
- The maximum intended load and the load-carrying capacities of the scaffolds used; and
- Any other pertinent requirements of 29 CFR 1926, Subpart L and this procedure.

Scaffold Inspectors and Erectors/Dismantlers

Each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold shall be trained, by a Competent Person for Scaffolding, to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable:

• The nature of scaffold hazards;

	 The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question; The design criteria, maximum intended load-carrying capacity and intended use of the scaffold; Any other pertinent requirements of 29 CFR 1926, Subpart L and this procedure. 		
2.	Retraining shall be provided when there is reason to believe that an employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, the employer shall retrain each such employee so that the requisite proficiency is regained. Retraining is required in at least the following situations: • Where changes at the worksite present a hazard about which an employee has not been previously trained; or • Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained; or • Where inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.	I	29 CFR 1926.454(c)

Appendix B. Definitions

Competent Person One who is capable of identifying existing and predictable hazards in the

surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt

corrective measures to eliminate them.

Dangerous Equipment (such as acid tanks, degreasing units, machinery, rotating

equipment, electrical equipment, and other units) which, as a result of form or function, may be hazardous to employees who fall onto or into

such equipment.

Fabricated frame scaffold

(tubular welded frame scaffold)

A scaffold consisting of a platform(s) supported on fabricated end frames with integral posts, horizontal bearers, and intermediate members.

Guardrail system A vertical barrier, consisting of, but not limited to, toprails, midrails, and

posts, erected to prevent employees from falling off a scaffold platform or

walkway to lower levels.

Lower levels Areas below the level where the employee is located and to which an

employee can fall. Such areas include, but not limited to, ground levels, floors, roofs, ramps, runways, excavations, pits, tanks, materials, water,

and equipment.

Mobile scaffold A powered or unpowered, portable, caster or wheel-mounted supported

scaffold.

Oualified Person One who, by possession of a recognized degree, certificate, or

professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

Scaffold Any temporary elevated platform or stair tower (supported or suspended)

and its supporting structure (including points of anchorage) used for

supporting employees or materials or both.

Scaffold erection Activities involving construction, modification within existing approved

design, repair, and disassembly of a scaffold.

Scaffold system Consists of the component parts of a scaffold unit that are designed by a

Qualified Person (e.g., manufacturer).

Stair Tower A tower comprised of scaffold components and which contain internal

stairway units and rest platforms. These towers are used to provide access

to scaffold platforms and other elevated points.

Supported scaffold One or more platforms supported by outrigger beams, brackets, poles,

uprights, posts, frames, or similar rigid support.

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Suspension scaffold	One or more platforms suspended by ropes or oth an overhead structure(s).	ner non-rigid means from
Tube and coupler scaffold	A supported or suspended scaffold consisting of a by tubing, erected with coupling devices connect bearers, and runners.	a platform(s) supported ing uprights, braces,

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Appendix C.

Feasibility Guide for Providing Safe Means of Access and Fall Protection During Supported Scaffold Erection Operations

1.0 GENERAL

This Appendix is provided to serve as a guide for the Competent Person for Erection to use in evaluating the feasibility of providing safe means of access and fall protection for employees engaged in scaffold erection.

A Competent Person for Erection will participate in the development, as part of the work planning process, the scaffolding plan checklist that includes an assessment of fall protection and access needs. Fall protection requirements will be documented in the Fall Protection Work Permit.

2.0 ACCESS

- 1. Safe means of access to supported scaffolds being erected or dismantled should be provided when feasible. The following are examples of situations that should be considered:
 - a. Situations where safe means of access can be provided from another structure.

These may include access from the structure being worked on, the use of stair towers, or other similar types of equipment, depending on site conditions - with consideration being given to any impacts on this other structure.

A Competent Person for Erection should determine that any structure used to provide access is stable and capable of withstanding the additional loads placed on it when used as access. The use of stair towers or other similar types of equipment will require the Competent Person for Erection to determine that the ground or foundation supporting the stair tower is capable of providing the firm footing needed to safely use this type of equipment.

b. Frames designed for climbing can be used to provide safe access.

A Competent Person for Erection should determine if the scaffold being erected/dismantled using these frames is sufficiently stable to allow a Scaffold Erector to climb the scaffold structure without tipping the whole unit. Factors that need to be considered include the need for ties, guys and braces to ensure stability as a result of added weights imposed.

c. <u>Hook-on or attachable ladders may be used as a means of access during erecting and dismantling operations at the discretion of the Competent Person for Erection.</u>

A Scaffold Erector may climb the scaffold structure itself during scaffold erection activity. Hook-on or attachable ladders must be put in place before the scaffold is released for use.

2. The following criteria provide the Competent Person for Erection with assistance in making safe means of access feasibility determinations. This Competent Person should look at:

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- The conventional means of access (e.g., ladders, stairs), and how their use could prevent performance of work or create a greater hazard for employees (for example, at what point is the scaffold capable of supporting a ladder or other access device),
- The use of outriggers, braces, ties, guys, or similar equipment that could be used to secure, stabilize, or reinforce the structure and the scaffold in order to provide adequate support for access equipment,
- The use of a work procedure that ensures that materials including scaffold components are not loaded on the scaffold in a manner which would hinder access,
- The use of elevating work platforms and similar equipment, while possibly feasible, has the potential of creating a greater hazard; a small miscalculation when raising or lowering the equipment could result in the equipment contacting the partially erected scaffold causing it to collapse; poor ground conditions could result in the scaffold foundation being displaced when an elevating work platform is too close to the scaffold.

3.0 FALL PROTECTION

- 1. Fall protection is to be provided for employees erecting or dismantling supported scaffolds, whenever feasible. The Competent Person for Erection will consider ten feet as representing the trigger level height at which feasibility determinations are to be made. The feasibility for Scaffold Erector use of fall protection is dependent upon several items including, but not limited to:
 - o Availability of a suitable anchorage point (accessible or adjacent to the work location),
 - Ability to use fall protection system that would prevent contact with lower level or obstacle,
 - Ability to install a fall protection system which will not create a greater hazard for the worker(s) installing it, or the Scaffold Erector accessing it (e.g., exposure time, poor body positioning),
 - o Ability to keep life lines untangled during erection or dismantling activity,
 - o Ability to keep life lines from becoming a tripping hazard,
 - o Potential for "pendulum swing" of a Scaffold Erector during a fall event is limited or nonexistent.
- 2. The following criteria is intended to provide the Competent Person for Erection with assistance in making fall protection feasibility determinations:

NOTE: The Competent Person for Erection may need to consult with professional engineers or manufacturers to provide information that will assist them in decision-making.

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 Existence of a structure capable of providing and supporting an adequate personal fall arrest system (PFAS); such anchorage must be capable of supporting 5,000 lbs. per attached worker, or be a pre-engineered system,

If the Competent Person for Erection determines the scaffold system itself will be utilized for anchorage then a qualified person for fall protection shall be consulted.

- Use of outriggers, braces, ties, guys, and similar equipment to secure, stabilize, or reinforce the scaffold or the structure so that an adequate anchor can be provided,
- o Increase in employee exposure time with the provision of outriggers, braces, ties, guys, additional scaffold or stairway(s), or installation of fall arrest equipment,
- Existence of safe access to the position of an anchor point,
- o Development of effective work procedures to minimize the likelihood of entanglement of lifelines, tripping hazards, or other hazards which may create a fall potential,
- Erection of scaffold sections at ground level, and the hoisting of such units for final assembly, to reduce Scaffold Erector exposure time.

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Appendix D. Scaffold Inspection Tag

FRONT

Scaffold Inspection Tag		
·		pen to fill out tag.
Date of Inspection	Shift	Inspectors Signatures
	0	
25	Duty ipsf	: Medium Duty Heavy Duty 50psf 75spf Ild Area=MIL dispersed load).
		Reorder No. G303402.3

BACK

	Inspection Items
Completed	scaffold status tag attached near the access point
Ladder, sta	airway, or special-design framing installed for access
	nit plumb and level, resting on stable footing and firm (including base plates)
Diagonal c	ross bracing in place to support legs
	ng, or bracing installed to maintain scaffold unit stabilit ht to base size exceeds 4:1 ratio
Scaffold un base size ≤	it is stable for the work to be performed, where the height 4:1 ratio
	ection completed for presence of loose, damaged, or imponents (e.g., Locking pins, planking, access framing,
	vel platform(s) fully planked between guardrails and prevent movement
Platform fr	ee of debris, and slipping/tripping hazards
Platform gu	uardrails firmly in place on all open sides/ends, where

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Appendix E. GREEN Status Tag



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Appendix F. YELLOW Status Tag



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Appendix G. RED Status Tag

